

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended): A serial~~Serial~~ data bus having a data line (12) for the transmission of electrical signals (48, 50) representing bit states and having a plurality of multi-master subscribers (14, 16) between which messages can be exchanged via the data line (12) in an event-driven manner according to the broadcast principle, the serial data bus comprising:

~~characterised in that~~

at least two subscribers (14, 16) ~~each including~~ have a transmission/reception head (18) which can be inductively coupled to the data line (12) and via which electrical signals (50) can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier (36) which receives electrical signals (48) that have been transmitted inductively onto the data line (12) by the at least two subscribers (14, 16), and couples them back into the data line (12) after their amplification, is DC-connected to the data line (12).

2. (currently amended): The serial data~~Data~~ bus according to Claim 1, characterised in that the messages contain priority bits by the reception of which, in the event of simultaneous message transmissions by a plurality of subscribers (14, 16), a subscriber (14, 16) can determine whether it has ~~[[the]]~~ priority to transmit data bits by means of a comparison with priority bits which it itself transmits.

3. (currently amended): The serial data~~Data~~ bus according to Claim 2, characterised in that the~~[[a]]~~ subscriber (14, 16) does not have ~~[[the]]~~ priority to transmit data bits when it receives a

signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state.

4. (currently amended): The serial data~~Data~~ bus according to Claim 3, wherein one of the preceding claims, characterised in that the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse.

5. (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein one of the preceding claims, characterised in that the transmission/reception head (18) comprises:

a) a transmission coil (30); [[;]]

b) a reception coil (34); [[;]]

c) a transmission module (24) by which electrical signals (32), which can be applied to the transmission coil (30), can be generated from digital information; [[;]]

d) a reception module (22) by which digital information can be generated from electrical signals (50) that can be tapped by the reception coil (34); [[;]] and,

e) a logic unit (20), connected to the transmission module (24) and the reception module (22), for collating and evaluating messages from digital information received by the reception module (22) and for generating digital information for the transmission module (24).

6. (currently amended): The serial data~~Data~~ bus according to Claim 4, wherein message priority 2 or 3 and according to Claim 5, characterised in that the priority of messages can be determined by the logic unit (20).

7. (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein one of the preceding claims, characterised in that after reception of the electrical signals~~a signal~~

(48) from one of the at least two subscribers (14, 16), the amplified signals (50) can be transmitted onto the data line (12) by the amplifier (36) within approximately 25-50%, ~~preferably within 25%~~, of a cycle length which lies at least between two signals transmitted onto the data line (12) by one of the at least two subscribers (16, 18).

8. (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein~~one of the preceding claims, characterised in that~~ the messages have the format established in the CAN standard.
9. (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein one of the at least two subscribers~~one of the preceding claims, characterised in that at least one subscriber (14, 16)~~ is arranged so that it can travel along the data line (12).
10. (currently amended): A motion~~Motion~~ system having a first part and a second part, which is arranged mobile relative to the first part, wherein~~characterised in that~~ subscribers of a data bus according to Claim 9 are arranged statically on the two parts.
11. (currently amended): The motion~~Motion~~ system according to Claim 10, adapted for design~~characterised in that it is designed~~ as a track-bound transport system having with a track (62) and a plurality of vehicles that~~(64, 66) which~~ travel along the track (62), the transport system (60) comprising, for communication between the vehicles (64, 66), a data bus (10) according to Claim 9 whose data line (12) is arranged along the track (62) of the transport system (60) and whose subscribers are the vehicles (64, 66).
12. (currently amended): The motion~~Motion~~ system according to Claim 11, wherein~~characterised in that~~ at least one vehicle comprises a vehicle control (78), which is connected to the transmission/reception head (18).
13. (currently amended): The motion~~Motion~~ system according to Claim 11, wherein~~or 12, characterised in that~~ the amplifier (36) is connected to a control unit (44; 441, 442, 443) for controlling the vehicles (64, 66) along the data bus (10).

14. (currently amended): The motion~~Motion~~ system according to Claim 13, wherein~~characterised in that~~ the amplifier (36; 361, 362, 363) is connected to the control unit (44; 441, 442, 443) via a CAN bus (821, 822, 823).
15. (currently amended): The motion~~Motion~~ system according to Claim 13 being or~~14,~~ characterised in that it is subdivided into a plurality of segments (601, 602, 603) which respectively comprise a data bus (10) having a control unit (441, 442, 443), and in that the control unit (441, 442, 443) for the individual segments is connected to a superordinate central control (94).
16. (currently amended): The motion~~Motion~~ system according to Claim 15, wherein~~characterised in that~~ the track (62) for the vehicles (64, 66) extends over a plurality of segments (601, 602, 603) so that vehicles (64, 66) can travel over segment boundaries.
17. (currently amended): The motion~~Motion~~ system according to Claim 11 being one of~~Claims 11 to 16, characterised in that it is~~ designed as an overhead conveyor system (60) for transporting objects, in particular motor vehicle bodywork (60).
18. (currently amended): A serial~~Serial~~ method for the event-driven transmission of messages between a plurality of multi-master subscribers (14, 16) according to the broadcast principle via a data bus (10), the method comprising the steps of~~characterised by the following steps:~~
- a) ~~contactless~~ transmission of an electrical signal (52) by a subscriber (14) onto a data line (12) of the data bus (10) via a transmission/reception head (18), coupled inductively to the data line (12), of the subscriber (14);
- b) ~~reception~~ of the electrical signal (48) attenuated by the inductive transmission by an amplifier (36) DC-connected to the data line (12);

~~e)~~ amplification of the received signal (48) in the amplifier (36);

~~d)~~ coupling of the amplified signal (50) onto the data line (12); and,

~~e)~~ reception of the amplified signal (50) transmitted onto the data line (12) by a transmission/reception head (18), coupled inductively to the data line (12), of another subscriber (16).

19. (currently amended): The method~~Method~~ according to Claim 18, suche~~characterised in~~ that when a subscriber (14, 16) simultaneously transmits a message and receives a message, it determines whether it has the priority to transmit data bits by means of a comparison of received priority bits and self-transmitted priority bits.
20. (currently amended): The method~~Method~~ according to Claim 21, suche~~characterised in~~ that a subscriber does not have the priority to transmit data bits when it receives a signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state.
21. (currently amended): The method~~Method~~ according to Claim 20, suche~~characterised in~~ that the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse.
22. (currently amended): The method~~Method~~ according to Claim 18, such~~one of Claims 18 to 21, characterised in~~ that the messages have the format established in the CAN standard.